

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An aqueous polymer dispersion having a minimum film-forming temperature of below +65°C comprising at least one film-forming polymer in the form of dispersed polymer particles comprising a polymer phase P1 and a different polymer phase P2, the polymer dispersion obtained by free-radical aqueous emulsion polymerization comprising the following steps:

- i) polymerization of a first monomer charge M1 to give a polymer phase P1 having a theoretical glass transition temperature  $T_g^{(1)}$  (according to Fox) and
- ii) polymerization of a second monomer charge M2 to give a polymer phase P2 having a theoretical glass transition temperature  $T_g^{(2)}$  (according to Fox) which is at least 10 kelvins above  $T_g^{(1)}$  in the aqueous dispersion of the polymer phase P1, at least one chain transfer reagent being used either in the polymerization of the monomer charge M1 or in the polymerization of the monomer charge M2, wherein the monomer charge M2 contains at least 80% by weight, based on the overall weight of the monomers contained in the monomer charge M2, of one or more C<sub>1</sub>-C<sub>4</sub> alkyl methacrylates.

Claims 2-3 (Canceled).

4 (Original): An aqueous polymer dispersion as claimed in claim 1, wherein the chain transfer reagent is selected from organic compounds having at least one SH group.

5 (Original): An aqueous polymer dispersion as claimed in claim 1, wherein the chain transfer reagent is used in an amount of from 0.1 to 5% by weight, based on the weight of the monomers contained in the respective monomer charge M1 or M2.

Claim 6 (Canceled).

Claim 7 (Original): An aqueous polymer dispersion as claimed in claim 1, wherein the monomer charge M1 comprises:

- from 30 to 80% by weight of at least one monomer M1a selected from C<sub>1</sub>-C<sub>10</sub> alkyl esters of acrylic acid,
- from 20 to 60% by weight of at least one further monomer M1b selected from the C<sub>1</sub>-C<sub>4</sub> alkyl esters of methacrylic acid and from vinylaromatic monomers, and
- from 0 to 20% by weight of one or more ethylenically unsaturated monomers different from but polymerizable with the monomers M1a and M1b.

Claim 8 (Original): An aqueous polymer dispersion as claimed in claim 1, wherein the monomer charges M1 and M2 comprises in total from 0.1 to <3% by weight, based on the overall weight of the monomers contained in the monomer charges M1 and M2, of at least one monoethylenically unsaturated monomer having an acid group, or salt thereof.

Claim 9 (Original): An aqueous polymer dispersion as claimed in claim 1, wherein the weight ratio of the monomers present in the monomer charge M1 to the monomers present in the monomer charge M2 is in the range from 20:1 to 1:20.

Claim 10 (Currently Amended): A process for preparing an aqueous polymer dispersion as defined in claim 1 by free-radical aqueous emulsion polymerization comprising the following steps:

- i) polymerization of a first monomer charge M1 to give a polymer phase P1 having a theoretical glass transition temperature  $T_g^{(1)}$  (according to Fox) and
- ii) polymerization of a second monomer charge M2 to give a polymer phase P2 having a theoretical glass transition temperature  $T_g^{(2)}$  (according to Fox) which is at least 10 kelvins above  $T_g^{(1)}$  in the aqueous dispersion of the polymer phase P1, at least one chain transfer reagent being used either in the polymerization of the monomer charge M1 or in the polymerization of the monomer charge M2, wherein the monomer charge M2 contains at least 80% by weight, based on the overall weight of the monomers contained in the monomer charge M2, of one or more C<sub>1</sub>-C<sub>4</sub> alkyl methacrylates.

Claim 11 (Original): A pigmented and/or filled coating composition comprising as binder at least one aqueous polymer dispersion as defined in claim 1.

Claim 12 (Original): A composition as claimed in claim 11, which is a latex paint.

Claim 13 (Previously Presented): An aqueous polymer dispersion as claimed in claim 1, wherein the polymer phase obtained in the presence of the chain transfer agent has a weight-average molecular weight in the range from 20,000 to 200,000, determined by GPC.

Claim 14 (Previously Presented): An aqueous polymer dispersion as claimed in claim 13, wherein the polymer phase obtained in the presence of the chain transfer agent has a weight-average molecular weight in the range from 30,000 to 100,000, determined by GPC.

Claim 15 (Previously Presented): An aqueous polymer dispersion as claimed in claim 1, wherein the polymer phase obtained in the absence of the chain transfer reagent has a weight-average molecular weight of above 800,000, determined by GPC.

Claim 16 (Previously Presented): An aqueous polymer dispersion as claimed in claim 15, wherein the polymer phase obtained in the absence of the chain transfer reagent has a weight-average molecular weight of above 1,000,000, determined by GPC.

Claim 17 (Previously Presented): An aqueous polymer dispersion as claimed in claim 13, wherein the polymer phase obtained in the absence of the chain transfer reagent has a weight-average molecular weight of above 800,000, determined by GPC.

Claim 18 (Previously Presented): An aqueous polymer dispersion as claimed in claim 14, wherein the polymer phase obtained in the absence of the chain transfer reagent has a weight-average molecular weight of above 1,000,000, determined by GPC.

Claim 19 (Previously Presented): An aqueous polymer dispersion as claimed in claim 1, wherein the weight ratio of the monomers present in the monomer charge M1 to the monomers present in the monomer charge M2 is in the range from 2:1 to 5:1.

Claim 20 (Previously Presented): The aqueous polymer dispersion as claimed in claim 1, wherein the chain transfer reagent is used in the polymerization of the monomer charge M1.

Claim 21 (Previously Presented): The aqueous polymer dispersion as claimed in claim 20, wherein the chain transfer reagent is used in an amount of from 0.2 to 2% by weight, based on the weight of the monomers contained in the monomer charge M1.

Claim 22 (Previously Presented): An aqueous polymer dispersion as claimed in claim 20, wherein the weight ratio of the monomers present in the monomer charge M1 to the monomers present in the monomer charge M2 is in the range from 2:1 to 5:1.

Claim 23 (Previously Presented): The process as claimed in claim 10, wherein the chain transfer reagent is used in the polymerization of the monomer charge M1.

Claim 24 (Previously Presented): The process as claimed in claim 23, wherein the chain transfer reagent is used in an amount of from 0.2 to 2% by weight, based on the weight of the monomers contained in the monomer charge M1.

Claim 25 (Canceled).

Claim 26 (Previously Presented): The process as claimed in claim 10, wherein the monomer charge M1 comprises:

- from 30 to 80% by weight of at least one monomer M1a selected from the C<sub>1</sub>-C<sub>10</sub> alkyl esters of acrylic acid,
- from 20 to 60% by weight of at least one further monomer M1b selected from the C<sub>1</sub>-C<sub>4</sub> alkyl esters of methacrylic acid and from vinylaromatic monomers, and
- from 0 to 20% by weight of one or more ethylenically unsaturated monomers different from but polymerizable with the monomers M1a and M1b.

Claim 27 (Previously Presented): The process as claimed in claim 10, wherein the monomer charges M1 and M2 comprise in total from 0.1 < 3% by weight, based on the

overall weight of the monomers contained in the monomer charges M1 and M2, of at least one monoethylenically unsaturated monomer having an acid group, or salt thereof.

Claim 28 (Previously Presented): The process as claimed in claim 10, wherein the weight ratio of the monomers present in the monomer charge M1 to the monomers present in the monomer charge M2 is in the range from 2:1 to 5:1.

Claim 29 (Previously Presented): The process as claimed in claim 23, wherein the weight ratio of the monomers present in the monomer charge M1 to the monomers present in the monomer charge M2 is in the range from 2:1 to 5:1.

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended by incorporating the subject matter of Claim 6 therein;  
Claim 6 has been canceled. Claim 10 has been amended by incorporating the subject matter  
of Claim 25 therein; Claim 25 has been canceled.

No new matter has been added by the above amendment. With entry thereof, Claims  
1, 4, 5, 7-24 and 26-29 will be pending in the application.